

**INFORMAL INITIAL WRITTEN COMMENTS
OF THE COALITION TO
REQUEST EQUITABLE ALLOCATION OF COSTS TOGETHER (“REACT”)¹**

The Coalition to Request Equitable Allocation of Costs Together (“REACT”) commends the Illinois Commerce Commission (“Commission”) for working with the United States Department of Energy (DOE) and the Pacific Northwest National Laboratory (PNNL) to develop and publish the Distribution Generation Valuation and Compensation White Paper (the “White Paper”). REACT appreciates the opportunity to provide these initial Comments on Distributed Energy Resource (“DER”) valuation and related issues. REACT includes large energy users who own and operate on-site generation at their facilities, as well as developers who work with large energy users and others to develop DER.

As it considers grid modernization and customer empowerment issues, the Commission should recognize that there are a variety of DERs that add value to the grid, and that should be compensated in a manner that provides price signals accurately reflecting their value.

Scope of the Investigation

As an initial point, it should be noted that this investigation extends beyond examining the value of “distributed generation.” Section 16-107.5(e) defines the scope of the Commission’s investigation:

When the total generating capacity of the electricity provider's net metering customers is equal to 3%, the Commission shall open an investigation into an annual process and formula for calculating the value of rebates for the retail customers described in subsections (b) and (f) of this Section that submit rebate applications after the threshold date for an electric utility that elected to file a tariff pursuant to this Section. **The investigation shall include diverse sets of stakeholders, calculations for valuing distributed energy resource benefits to the grid based on best practices, and assessments of present and future technological capabilities of distributed energy resources.** The value of such rebates shall reflect the value of the distributed generation to the distribution system at the location at which it is interconnected, taking into account the geographic, time-based, and performance-based benefits, as well as technological capabilities and present and future grid needs.

(220 ILCS 5/16-107.5(e). Emphasis added.) Thus, this investigation is not limited to valuing “distributed generation,” but rather includes all “distributed energy resources,” which includes “distributed generation,” but also includes a variety of other resources. For example, the North American Electric Reliability Corporation (“NERC”) defines DER as follows:

¹ These Comments are preliminary and necessarily incomplete, given that the Commission has just begun substantive discussions on specific issues and the comments of other stakeholders have not been considered prior to the submission of these Comments. REACT reserves the right to respond to additional questions and provide additional or different Comments as this process evolves.

A Distributed Energy Resource (DER) is any resource on the distribution system that produces electricity and is not otherwise included in the formal NERC definition of the Bulk Electric System (BES).

(NERC, “Distributed Energy Resources, Connection Modeling and Reliability Considerations,” Feb. 2017 at 1, https://www.nerc.com/comm/Other/essntlrbltysrvscstskfrcDL/Distributed_Energy_Resources_Report.pdf (last visited March 30, 2018).) As such, DER includes distributed generation, behind-the-meter generation, energy storage facilities, distributed energy resource aggregation, micro-grids, and cogeneration. (*See id.*) Other utility commissions have recognized that it also is appropriate to include energy efficiency and demand response in the definition of DER. (*See* White Paper at 15.)

The Importance of Context

As recognized in the White Paper, a critical preliminary step in the valuation process is to understand the goals that the State wants to achieve. (*See id.* at 2.) Over the years, the General Assembly has provided that context for the Commission.

The first sentence of the Illinois Public Utilities Act (“PUA”) sets forth the State’s touchstone goals:

The General Assembly finds that the health, welfare and prosperity of all Illinois citizens require the provision of **adequate, efficient, reliable, environmentally safe and least-cost** public utility services **at prices which accurately reflect the long-term cost of such services and which are equitable to all citizens**.

(220 ILCS 5/1-102. Emphasis added.) The PUA then suggest that all regulations should be in-line with advancing those overarching goals, and that the regulations should seek to ensure efficiency, environmental quality, reliability, and equity. (*See id.*)

With the Electric Service Customer Choice and Rate Relief Law of 1997 (the “Customer Choice Act”), the General Assembly noted that the State had been well-served by comprehensive regulation to achieve these goals, but given the changes in the electricity markets, the State would be best served by enabling competitive market forces for electricity supply. (*See* 220 ILCS 5/16-101A(a), (b).) As a result, the Commission was directed to “**promote the development of an effectively competitive electricity market** that operates efficiently and is equitable to all consumers.” (220 ILCS 5/16-101A(d). Emphasis added.)

Most recently, the General Assembly recognized that the investment in smart grid technologies “**empowers the citizens of this State to directly access and participate** in the rapidly emerging clean energy economy while also presenting them with unprecedented choices in their source of energy supply and pricing.” (P.A. 99-0906, Section 1.)

The General Assembly then articulated the specific goals associated with this next step of the electric restructuring process:

To ensure that the State and its citizens, including low-income citizens, are equipped to enjoy the opportunities and benefits of the smart grid and evolving

clean energy marketplace, the General Assembly finds and declares that Illinois should continue in its efforts to build the grid of the future using the smart grid and advanced metering. infrastructure platform, as well as maximize the impact of the State's existing energy efficiency and renewable energy portfolio standards. Specifically, the General Assembly finds that:

(1) **the State should encourage: the adoption and deployment of cost-effective distributed energy resource technologies and devices**, such as photovoltaics, which can encourage private investment in renewable energy resources, stimulate economic growth, enhance the continued diversification of Illinois' energy resource mix, and protect the Illinois environment . . .

(*Id.* Emphasis added.)

Thus, applying the guidance provided by the General Assembly, the Commission should support advancement of cost-effective DERs, primarily through the promotion of an effectively competitive electricity market, with regulation where necessary to continue to ensure adequate, efficient, reliable, environmentally safe and least-cost service with equitable rates that accurately reflect the long-term costs of providing service.

The Unique Value Associated With C&I Behind-The-Meter DER

As reflected in the definitions of DER used by NERC and other state commissions, DER systems are non-utility scale technologies used to provide (or avoid the consumption of) electricity, as an alternative to utility-scale generation connected to the transmission system. DERs can reduce the need for new generation capacity, reduce wholesale capacity prices, reduce wholesale energy prices, reduce transmission and distribution costs, and improve system reliability and resilience. DERs also can create benefits that are experienced by society in general, such as reduced environmental impacts, regional and local economic development, and job growth. It would be appropriate for the Commission to take into consideration all of these benefits as it investigates and adjusts the utilities' rates.

REACT also respectfully requests that, as part of this investigation, the Commission recognize the unique value that commercial and industrial ("C&I") customer on-site DER provides to the grid. In Illinois, to the extent that C&I customers do not have behind-the-meter DER, most purchase the commodity of electricity from an alternative retail electric supplier ("ARES"), and have the electricity delivered by the transmission and local distribution utilities. Behind-the-meter DER provides the important benefits of lowering the power needs from utility-scale power plants, improving reliability and resilience, and reducing the need for transmission and distribution system upgrades. In this regard, behind-the-meter DER can be thought of as "locally sourced" electricity.

Behind-the-meter DER includes cogeneration, combined heat and power, reciprocating engines, and other generation or energy storage systems installed on the customer's premises to provide all or a portion of the customer's electricity supply requirements. This type of DER differs significantly from many of the solar and wind distributed generation projects that may not be

located on a customer's premise. For example, a customer who is part of a community solar or wind project will receive a financial payment or utility bill credit for electricity that is generated remotely and passed through the distribution system, whereas as behind-the-meter DER displaces utility-delivered electricity, helping the grid operate more efficiently and at a lower cost, since less electricity needs to be delivered by the utility. Many of these on-site DER systems also are more reliable than solar and wind, in that they have their own fuel source that can be available for extended time periods at relatively constant capacity levels, and are not dependent on the sun shining or the wind blowing to produce electricity.

This means that a valuation of behind-the-meter DER should include not only the displaced energy "commodity" costs associated with the particular resource, but also all fixed related "avoided" costs associated with transmission and capacity. As reflected in the White Paper, other states, including Minnesota, Oregon, California, and New York already have embraced providing transmission and capacity credits for DER. (*See* White Paper at 9-13.) However, in Illinois the developer of a community wind or solar project will receive capacity payments, but large C&I customers with on-site generation are not provided with any capacity payments for their "iron in the ground" investments, and also have substantial transmission and capacity related cost risks.

For example, in the Commonwealth Edison Company ("ComEd") service territory, all utility customers -- including those with on-site generation -- pay for ComEd transmission and PJM capacity based on their Peak Load Contribution ("PLC") during the five highest ComEd and PJM system peak hours, which usually occur during the summer months of June to September (but can occur at any time). The five peak hours may not be the same for ComEd and PJM and are not known until after the summer period. Thus, these customers run a risk of incurring significant, unjustified charges if their on-site generation happens to be off-line or not operating at full capacity during one or more of these "peak" hours; if that occurs, the customer could end up receiving an inaccurate and inflated PLC, which would mean significant additional costs based on a measurement that fails to properly account for the existing DER at the customer's facility.

As shown in Table 1, these additional charges can be significant:

Table 1. Annual Transmission and Capacity Charges - ComEd Zone
Charges Assume 1 MW (1,000 kW)

PJM Capacity Charge - ComEd	June 1, 2017	June 1, 2018	June 1, 2019	June 1, 2020
Capacity Price (Daily Charge)	\$154	\$212	\$191	\$183 /MW
PLC Obligation	1.00	1.00	1.00	1.00 /MW
PJM Pooling Requirements Factor	1.0967	1.0905	1.0881	1.0500
PJM Zonal Scaling Factor	1.0530	1.1743	1.1137	1.0697
Adjusted PLC Obligation	1.1548	1.2806	1.2118	1.1232 /MW
Daily Charge	\$177	\$272	\$231	\$206
Annual Capacity Charge	\$64,748	\$99,103	\$84,427	\$75,082 /MW
ComEd Transmission Rate				
Annual Charge	\$34,392	\$34,392	\$34,392	\$34,392 /MW
PLC Obligation	1.00	1.00	1.00	1.00
Annual Transmission Charge	\$34,392	\$34,392	\$34,392	\$34,392
Total PJM Cap. & Trans. Charge	\$99,140	\$133,495	\$118,819	\$109,474

Notes

- a. June 2019 and 2020 capacity rates based on first incremental auction results. Supplemental auctions will slightly adjust these rates.
- b. Annual transmission rate is updated each June 1. Assumed no change in rate for June 2018 to June 2020 period.

Thus, it is estimated that for the ComEd service territory the annual transmission and capacity related charges for customers beginning in June 2018 will be approximately \$130,000 per MW; starting June 2019 annual charges will be nearly \$120,000; and starting June 2020 they will be approximately \$110,000 per MW.

Although some customers with on-site generation currently may use the PJM demand response program to mitigate their capacity risk, it would be more efficient if customers were able to directly access those markets themselves. Moreover, the demand response market does not fully compensate customers for the value they are providing. The calculation of the value that customers with on-site generation provide is simply the other side of the coin of the transmission and capacity charge calculation, since those charges are cost-based. That is, for each MW of on-site generation, they should receive an annual credit equal to the annual per MW transmission and capacity related charges, since that calculation should reflect the costs that are avoided as a result of that MW of on-site generation.

Since large C&I customers with on-site generation typically have systems in the range of 5 MW, the value they are providing is in excess of \$500,000 per year. The current utility rates contain nothing to reflect this value. REACT respectfully requests that the Commission investigate revising those rates to accurately reflect the value that is being provided.

Finally, in order to further promote the development of effective electric markets for DER, the Commission also should consider tariffs that would empower customers to directly access the grid to sell their DER. Currently, the utilities' tariffs only allow such access to Qualifying Facilities.

Additional Steps To Encourage DER

Consistent with the General Assembly's guidance that the State should take steps to "encourage[] the adoption and deployment of cost-effective distributed energy resource technologies and devices," the Commission should conduct a comprehensive investigation with the goal of removing any and all regulatory burdens that unnecessarily inhibit the further deployment of DER. (P.A. 99-0906, Section 1.) In particular, the Commission should:

- Revise the interconnection process to require additional transparency. The process in Illinois should closely mirror the successful FERC / PJM process which includes a public queue and requires interconnection studies and agreements to be filed with the regulator. The Commission also should develop clear guidelines with respect to the type, scope and level of acceptable interconnection costs, and require utilities to provide full and complete supporting documents for their cost estimates.
- Investigate the circumstances under which customers should be entitled to self-build distribution system upgrades, consistent with the utility's requirements.
- Acknowledge that all DER is subject to either ICC or FERC oversight and regulation. The Commission should create a bright line definition to ensure that lower voltage facilities that qualify to become transmission under the FERC seven factors test do indeed become transmission. Jurisdiction over DER should be complete and seamless; there should be no suggestion that some form of DER "falls through the regulatory cracks."
- Recognize in its regulations that payments to the utilities for Commission-jurisdictional DER interconnection costs are not taxable income. Inappropriate tax treatment of these costs artificially inflates the upfront project costs and discourages otherwise cost-effective deployment of DER.

Conclusion

REACT appreciates the opportunity to present these initial Comments, and looks forward to working with the Commission and interested stakeholders in this process to develop equitable and accurate rates that reflect the unique value that C&I behind-the-meter DER provides to the grid as well as fair regulations that encourage cost-effective DER.